

# JPL Laser Hygrometer (JLH)



Measurement: water vapor (in situ).

#### **JLH Team:**

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## **Technique:**

Near-infrared tunable diode laser absorption spectroscopy, wavenumber = **7299.4** cm<sup>-1</sup> (1369.98 nm).

## **Specifications:**

• Detection range: 1 to 1000 ppmv

• Pressure range: 40 to 500 hPa

Accuracy: better than 10%

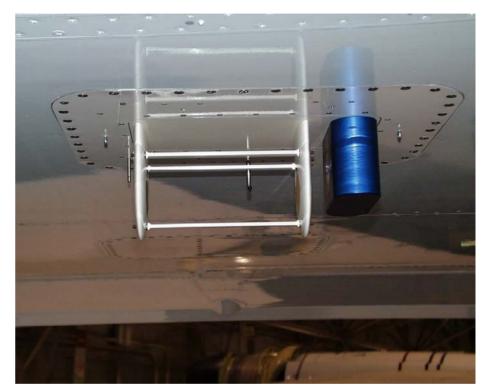
Precision: 0.03 ppmv

• Time-resolution: 1.3 sec

Mass: 20 lbs.

Power: 100 W (maximum)

Voltage: 28 V DC



## **Mounting:**

- Underwing hatch on WB-57 right wing.
- Blue housing contains laser and detector.
- Optical cell is external to the aircraft.
- White structure holds mirrors in place.